**Probability rules worksheet-1 NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. If P(A) = 0.26 and P(B) = 0.41 and P(A∩B) = 0.1, find the following:
   1. P(A U B) =
   2. P(B|A) =
   3. Are A and B disjoint events? Why or why not?
2. If P(A) = 0.42, P(B) = 0.33 and A and B are independent, what’s the probability of A and B?
3. If P(A) = 0.6 and P(B) = 0.34 and P(B|A) = 0.2, find the following:
   1. P(A and B) =
   2. P(A or B) =
4. Let the sample space, S = {all whole number from 0 through 19}

Let the event A = {2, 4, 6, 8, 10, 12}

Let the event B = {3, 6, 9, 12, 15, 18}

Let the event C = {1, 3, 5, 7, 9, 11, 13, 15, 17, 19}

Let the event D = {1, 4, 7, 8, 10, 14, 16, 18}

Find the following:

1. A ∩ B =
2. P(A ∩ B) =
3. Dc =
4. P(C ∩B) =
5. P(A U B) =
6. P(C ∩ D) =
7. P (Cc) =
8. C U A =

**Probability rules worksheet-1 NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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  2. P(A ∩ B) =
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  4. P(C ∩B) =
  5. P(A U B) =
  6. P(C ∩ D) =
  7. P (Cc) =
  8. C U A =

**Probability rules worksheet- 2 NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. If P(A) = 0.45 and P(B) = 0.60 and P(A∩B) = 0.22, find the following:
   1. P(A U B) =
   2. P(B|A) =
   3. Are A and B disjoint events? Why or why not?
2. If P(D) = 0.32, P(R) = 0.13 and D and R are disjoint, what is the probability of D or R?

1. If P(A) = 0.51 and P(B) = 0.28 and P(B|A) = 0.18, find the following:
   1. P(A and B) =
   2. P(A or B) =
2. Let the sample space, S = {all whole number from 10 through 30}

Let the event A = {12, 14, 16, 18, 20, 22}

Let the event B = {10, 15, 20, 25, 30}

Let the event C = {12, 13, 14, 15, 17, 18, 19, 20, 25, 27}

Let the event D = {11, 21, 23, 24, 26, 28}

Find the following:

1. A ∩ B =
2. P(A ∩ B) =
3. Dc =
4. P(C ∩B) =
5. P(A U B) =
6. P(C ∩ D) =
7. P (Cc) =
8. C U A =

**Probability rules worksheet- 2 NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. If P(A) = 0.45 and P(B) = 0.60 and P(A∩B) = 0.22, find the following:
   1. P(A U B) =
   2. P(B|A) =
   3. Are A and B disjoint events? Why or why not?
2. If P(D) = 0.32, P(R) = 0.13 and D and R are disjoint, what is the probability of D or R?

1. If P(A) = 0.51 and P(B) = 0.28 and P(B|A) = 0.18, find the following:
   1. P(A and B) =
   2. P(A or B) =
2. Let the sample space, S = {all whole number from 10 through 30}

Let the event A = {12, 14, 16, 18, 20, 22}

Let the event B = {10, 15, 20, 25, 30}

Let the event C = {12, 13, 14, 15, 17, 18, 19, 20, 25, 27}

Let the event D = {11, 21, 23, 24, 26, 28}

Find the following:

1. A ∩ B =
2. P(A ∩ B) =
3. Dc =
4. P(C ∩B) =
5. P(A U B) =
6. P(C ∩ D) =
7. P (Cc) =
8. C U A =